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May 30, 2008

Mr. Adam Laputz
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Dear Mr. Laputz:

Re: Long-term Irrigated Lands Regulatory Program

Turlock Irrigation District (TID) appreciates the opportunity to comment on the Long-term Irrigated Lands Regulatory Program (ILRP). TID has been heavily involved with the ILRP since the inception of the program and looks forward to continuing the open dialogue that has been established with Regional Water Quality Control Board staff.

As the long-term program is developed, it is important to remember the magnitude and complexity of the issue at hand. There are over 5 million acres included within the current program. Developing a regulatory program for such a vast and diverse combination of potential discharges is an extremely daunting task. Implementing the program will be just as overwhelming. For the program to be successful, it should focus on real problems, with real solutions. The program is far too large to address it using a typical point-source approach. Monitoring everywhere, for everything, will only result in an extremely expensive mountain of data. Limited resources should be focused where they can provide to best benefit.

It's also important to remember that Rome was not built in a day. Phasing the program in a manner that focuses on the most important issues first, will likely show positive results more quickly than if we try to address all possible issues at the same time. In addition, management practices implemented to address one constituent of concern may very well benefit others and potentially eliminate to need to address each item individually.

In addition to these general comments, the following issues should be considered as the RWQCB begins to develop the long-term program.

**Inclusion of Groundwater**

The inclusion of groundwater into the ILRP increases the scope and difficulty of the program dramatically. Groundwater hydrology is a very complex and inexact science. The United States Geological Survey (USGS) has been performing groundwater investigations on certain groundwater basins for decades and have yet to fully define the groundwater flow paths. In the course of these studies they have spent millions of dollars trying to characterize relatively small areas. To attempt to regulate, and therefore investigate, groundwater under 5 million acres of irrigated lands is truly an impossible task.

It's important to note that groundwater moves slowly. As a result, it tends to be old, on the order of decades or centuries in age. Groundwater contamination that is found today may have been caused by past parcel owners or by farming practices that no longer exist. The slow movement of groundwater also makes it difficult to determine if changes in practices are improving groundwater quality. If it is determined that a change must be made to a farming practice it will take decades or more to determine if that change had any effect on groundwater quality. In the meantime expensive groundwater monitoring will continue.

There are existing groundwater programs with large datasets (for example: USGS's NAWQA & GAMA programs and the Department of Pesticide Regulation (DPR) programs). The RWQCB should investigate these existing programs and determine what can be learned from those datasets before creating another costly program which may not produce positive results.

**Background Conditions**

An issue that has been a particular problem under the existing ILRP revolves around how to deal with background water quality that exceeds water quality objectives (WQOs). Often these background conditions are natural or were caused by practices many decades ago. An example of the natural background conditions that exceed WQOs is saline groundwater. The WQOs for salt are an electrical conductivity of 700 uS/cm and total dissolved solids of 450 mg/L and groundwater in many areas of the Central Valley typically exceed these values. There are multiple causes of these "elevated" levels in the groundwater including deposits of naturally occurring saline soils.

The fact that elevated levels of certain constituents can be representative of natural or background conditions must be recognized. Current agricultural practices may not be contributing significantly to these levels nor can anything be done about them. Other examples would be metals such as copper and zinc or legacy pesticides such as dichlorodiphenyltrichloroethane (DDT) and 1,2-Dibromo-3-Chloropropane (DBCP). A clear approach to dealing with elevated background conditions must be included in the Long-term ILRP.

**Watershed Approach**

TID would recommend to the ILRP staff to consider a watershed approach to solving the complex issues water quality within in the Central Valley. Such an approach would bring other regulatory programs as well as local governments to the table to make the best use of resources in identifying causes and possible solutions for water quality degradation.

Non-point source pollution is difficult issue to address, particularly within the Central Valley of California where most waterways are multi-use or multi-source. There are limited waterways that are strictly agricultural in nature. To require one industry, in this case agriculture, to investigate every exceedance in order to determine all of the possible sources is unrealistic, time consuming and extremely costly. Other parties that influence water quality within these areas may have information or resources that could save time and money in identifying the problem and finding a solution.

Many of the various types of discharges into Central Valley waterways are already regulated through, or have the potential to be regulated by, some type of regulatory program. Requiring agriculture to monitor and identify sources within waterways influenced by other sources creates a situation where the flows already regulated by one program are essentially re-regulated through the ILRP. Making one industry responsible for monitoring for and identifying sources is not appropriate. The Long-term ILRP must involve all parties within a watershed in the monitoring program. The RWQCB, through its regulatory authority, should require other dischargers to participate.

A watershed approach (involving urban, agricultural and other interests) should concentrate initial efforts on mainstem water bodies and their tributaries. If constituents are found to be above acceptable limits, upstream monitoring could be initiated to attempt to determine the source and identify management practices or other measures to address the issue. Additionally, if known problems or impairments of beneficial uses exist in upstream waterways, a watershed approach could be used to conduct additional monitoring and/or implement management practices to address those known issues of concern.

The current monitoring program looks at a variety to waterbodies without regard for how they fit into the watershed, or what other potential sources might influence water quality. Without taking into account the watershed dynamic, and including other dischargers into the process, the current disjointed approach will produce mountains of data, and result in the limited ability to solve problems.

It is also important to note that a watershed approach has the potential to reduce costs, by eliminating duplicative monitoring efforts and focusing limited resources on implementing solutions that have the greatest potential for resolving water quality problems.

**Irrigation Districts**

Questions have been posed by RWQCB staff as to what the role of irrigation districts will be under the Long-term Program. The irrigation districts could play a two-part role. The first part is monitoring for possible impacts from the various pesticides and practices utilized in the maintenance of the canals and rights of way, similar to what is being done now. The monitoring would be designed to evaluate the potential impact from district maintenance practices only, thereby evaluating a potential impact that is not already being regulated through another program.

The second part will be providing technical and information support to the local coalitions when possible. The irrigation districts that have not formally joined a coalition have maintained open communication with the coalitions formed to represent growers within their areas. Irrigation districts often have knowledge and data regarding the hydrology, weather, irrigation facilities and water quality in their area. The irrigation districts also shared this knowledge, as well as their own monitoring data with the coalitions. In addition, irrigation districts regularly provide education and outreach to growers on numerous topics, including information regarding regulatory changes that may affect them, like the ILRP. Irrigation districts have continued to work with the coalitions that have formed in their area to provide this and other information and/or assistance, and would propose to continue to do so.

If you have any questions, please feel free to contact me at (209) 883-8386.

Sincerely,

Keith Larson
Water Resources Analyst